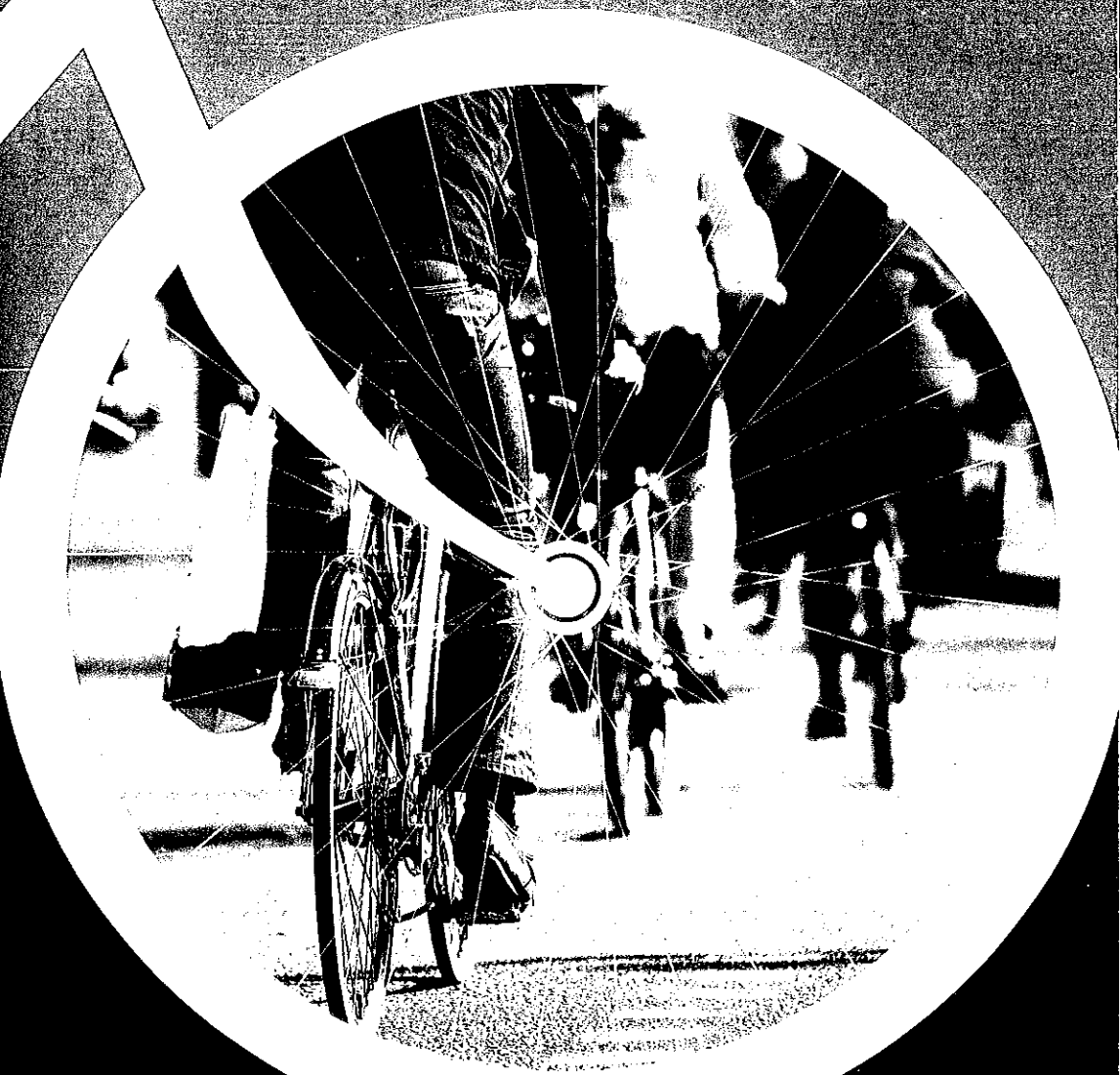
City Cycling

edited by John Pucher and Ralph Buehler



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International Overview: Cycling Trends in Western Europe, North America, and Australia

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Variation in Cycling Levels among Countries and Cities

There are large differences in cycling levels among countries in western Europe, North America, and Australasia. At the low end, the bike share of trips is only about 1 percent in Australia, Canada, and the United States and about 2 percent in the United Kingdom and Ireland (see figure 2.1). At the upper end, the bike share is 26 percent in the Netherlands, 18 percent in Denmark, and about 10 percent in Germany, Finland, Sweden, and Belgium.

For most of the countries shown in figure 2.1, the bike share refers to daily trips for all trip purposes, as derived from national travel surveys. Australia, Canada, and Ireland do not have national travel surveys, however, and their censuses report only on trips to work. Census data on work trips probably underestimate overall levels of cycling, as is seen most clearly by comparing the two 2009 surveys for the United States. The US Census Bureau's American Community Survey (ACS), which only includes work trips, reports two-thirds as high a bike share (0.6% versus 1.0%) as the National Household Travel Survey (NHTS), which includes all trip purposes.

There are also methodological differences in the travel surveys for the various countries that limit their comparability. Nevertheless, it is clear that cycling rates in most northern European countries are much higher than in North America and Australia. Roughly the same pattern of differences among countries holds for daily distance cycled per capita, ranging from 0.1 km in the United States and 0.2 km in the United Kingdom to 1 km in Germany, 1.6 km in Denmark, and 2.5 km in the Netherlands (European Commission 2005–2007; USDOT 2010b).

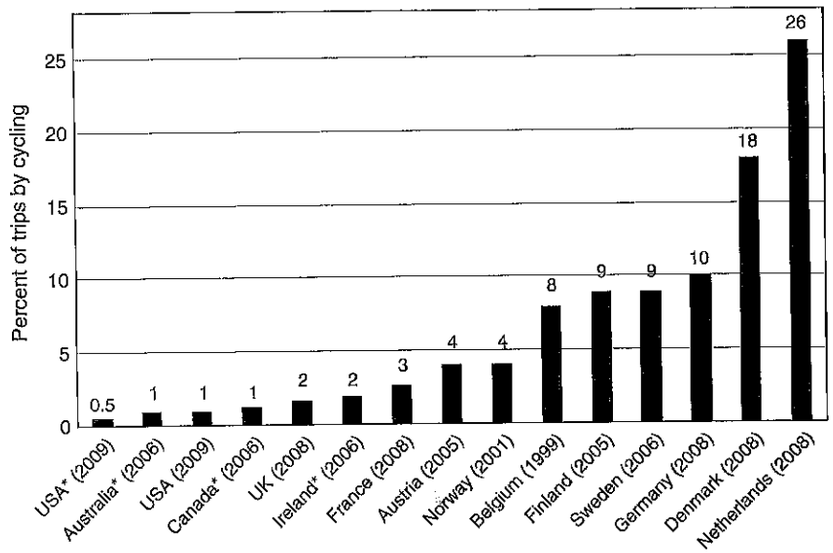

Figure 2.1
Cycling share of daily trips in Europe, North America, and Australia, 1999–2008. *Note:* The latest available travel surveys were used for each country, with the survey year noted in parentheses after each country name. The modal shares shown in the figure reflect travel for all trip purposes except for those countries marked with an asterisk (*), which report only journeys to work derived from their censuses. Differences in data collection methods, timing, and variable definitions across countries and over time limit the comparability of the modal shares shown in the figure. *Sources:* Australian Bureau of Statistics 2007; Bassett et al. 2008; German Ministry of Transport 2010; Danish Ministry of Transport 2010; Department for Transport 2010b; European Commission 2005–2007; Pucher and Buehler 2008; Statistics Canada 2010; USDOC 2010; USDOT 2010b.

The national differences presented in figure 2.1 hide variation in cycling levels among cities within each country. Figure 2.2 shows bike mode shares for selected cities in the Netherlands, Denmark, and Germany. Figure 2.3 shows bike mode shares for selected cities in the United Kingdom, the United States, Canada, and Australia. Although there is considerable variation within each country, the largest differences are between the bike-friendly countries in figure 2.2 and the car-dominated countries in figure 2.3.

With few exceptions, the most bike-oriented cities in the United Kingdom, the United States, Canada, and Australia have lower levels of

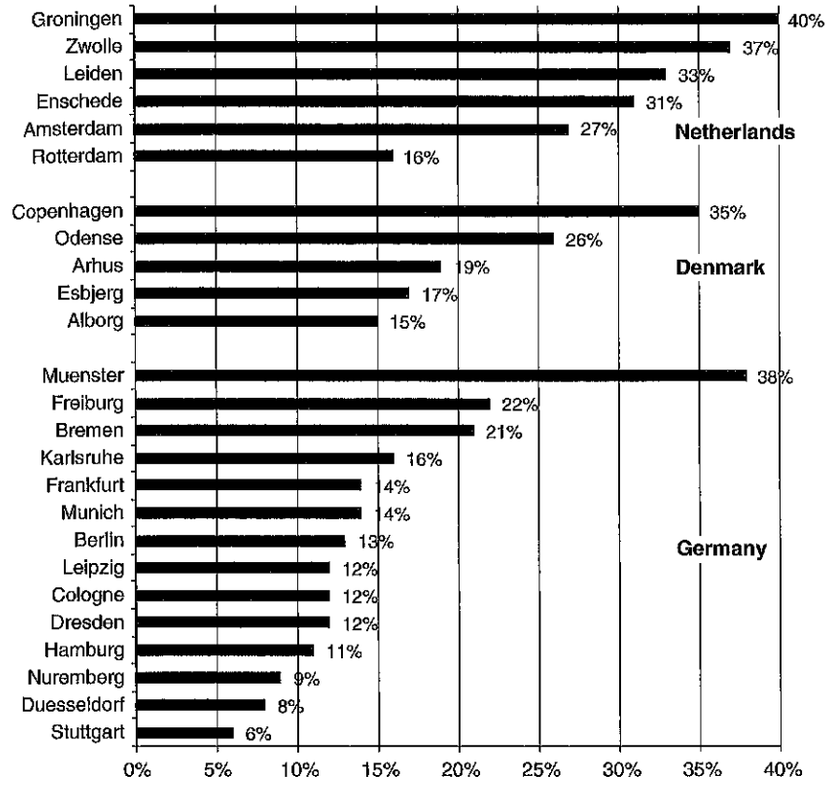

Figure 2.2
Bike share of trips in selected cities in the Netherlands, Denmark, and Germany, 2000–2009. *Sources:* ECMT 2004; City of Berlin 2010; Dutch Bicycle Council 2006, 2010; Socialdata 2009; HWWI 2010.

cycling than the least bike-friendly cities in the Netherlands, Germany, and Denmark. For example, only the small cities of Cambridge (England, United Kingdom), Victoria (British Columbia, Canada), Davis (California, United States) and Boulder (Colorado, United States) have bike mode shares comparable to those in most Danish, Dutch, and German cities. Portland, Oregon, the most bike-oriented large city in the United States, has a bike mode share of 6 percent, the same as Stuttgart, Germany, which is the least bike-oriented German city in our sample. Chapters 12, 13, and 14 provide more detailed analysis of the differences in cycling levels among cities in Australia, North America, and western Europe.

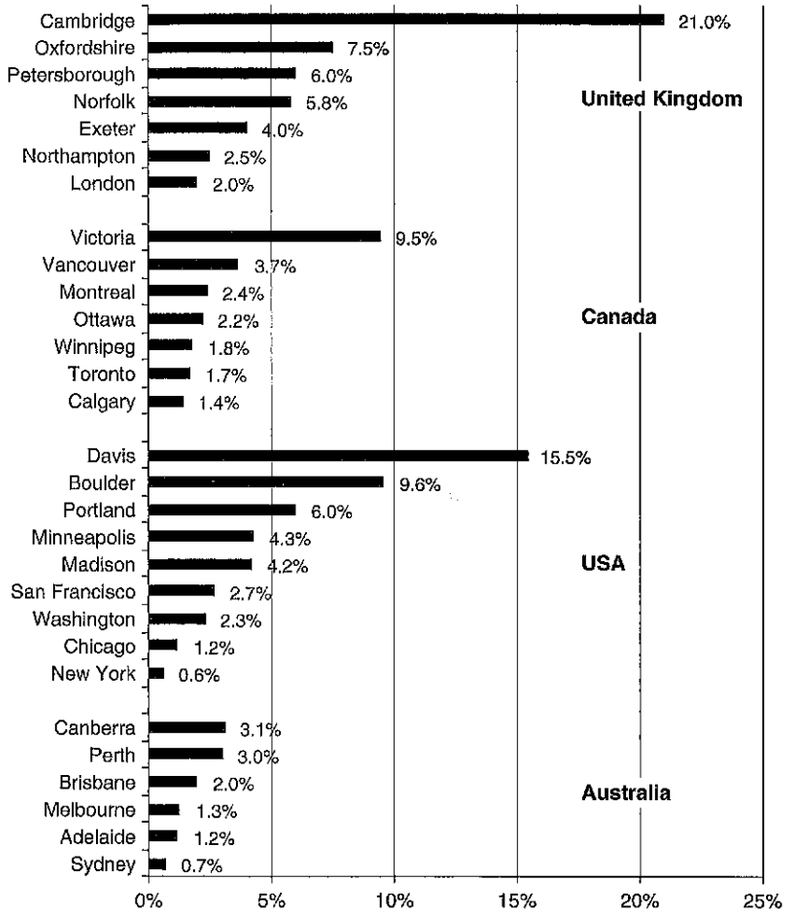

Figure 2.3
Bike share of trips in selected cities in the United Kingdom, Canada, the United States, and Australia, 2000–2009. *Sources:* Australian Bureau of Statistics 2007; Department for Transport 2010b; Statistics Canada 2010, USDOC 2010.

Trip Purpose and Distance

The higher share of trips by bicycle in Dutch, Danish, and German cities may be partly explained by shorter trip distances than in American, Canadian, and Australian cities due to more mixed-use development, less suburban sprawl, and higher population densities in Europe (Heinen, van Wee, and Maat 2010; Krizek, Forsyth, and Baum 2009). In the Netherlands, Denmark, and Germany, 40 percent of all trips are shorter than 2.5 km, compared to only about 30 percent in the United States and the United Kingdom (German Ministry of Transport 2010; Danish Ministry of Transport 2010; Department for Transport 2010b; Statistics Netherlands 2010; USDOT 2010c). However, even within the same trip distance categories, there are large differences among countries in bike mode share. Americans and Britons cycle for only 2 percent of trips shorter than 2.5 km, compared to bike mode shares of 31 percent in Denmark, 29 percent in the Netherlands, and 16 percent in Germany for the same trip distance. For trip distances from 2.5 to 4.5 km, the bike mode share in the United States and the United Kingdom is less than 2 percent, far lower than the 35 percent bike share of trips in the Netherlands, 24 percent in Denmark, and 12 percent in Germany. For trip distances from 4.5 to 6.5 km, the bike mode share is less than 1 percent in the United States and the United Kingdom, but 24 percent in the Netherlands, 15 percent in Denmark, and 7 percent in Germany. In short, the Dutch, Danes, and Germans cycle for much higher percentages of trips than Americans and Britons over all distance categories.

Trip purpose also varies by country. Cycling is mainly for practical, utilitarian purposes in northern Europe, even in the United Kingdom. For example, travel to work or school in the United States accounts for only 15 percent of all bike trips, compared to 28 percent in Germany, 30 percent in the United Kingdom, 32 percent in the Netherlands, and 35 percent in Denmark. Shopping accounts for 10 percent of bike trips in the United States but 20 percent in Germany, 22 percent in the Netherlands, and 25 percent in Denmark. More than 60 percent of bike trips in the United States are for recreational purposes, compared to 38 percent in Germany, 35 percent in the United Kingdom, 27 percent in the Netherlands, and 10 percent in Denmark (German Ministry of Transport 2010; Danish Ministry of Transport 2010; Department for Transport 2010b; Statistics Netherlands 2010; USDOT 2010c).

Who Cycles?

Cycling is common among all demographic groups in Germany, the Netherlands, and Denmark. For example, as shown in chapter 10, women are as likely to cycle as men in Germany (49% of cyclists are women), Denmark (55%), and the Netherlands (56%). By comparison, women account for less than 30 percent of cyclists in the United Kingdom (29%), Canada (29%), the United States (24%), and Australia (21%). Similarly, cycling is common in all age categories in Germany, the Netherlands, and Denmark. As shown in figure 2.4 and discussed further in chapter 11, children and adolescents have the highest cycling levels in all five countries. However, cycling levels are also high among adults in Germany, Denmark, and the Netherlands. Indeed, cycling rates increase for the

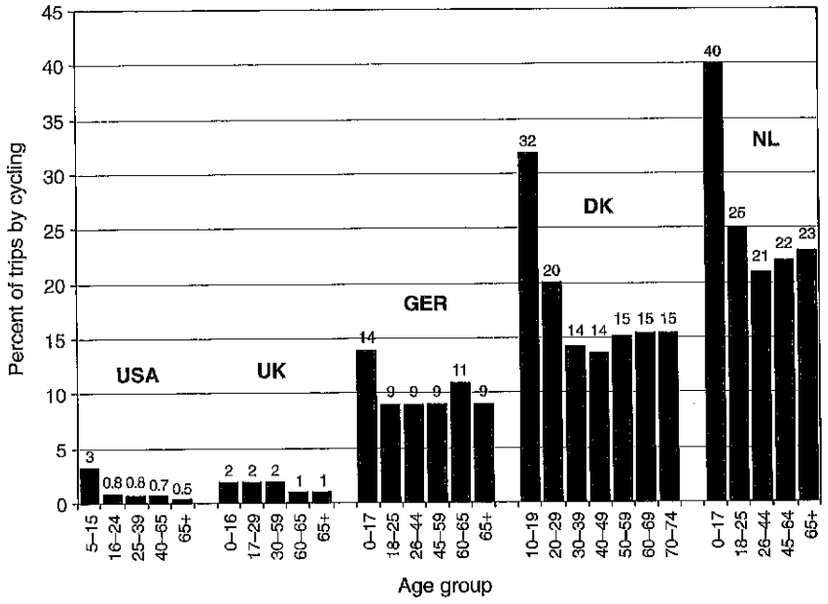

Figure 2.4
Cycling share of trips within each age group in the United States, the United Kingdom, Germany, Denmark, and the Netherlands, 2008 (as percent of trips by all modes for all trip purposes). *Sources:* Bassett et al. 2008; German Ministry of Transport 2010; Danish Ministry of Transport 2010; Department for Transport 2010b; European Commission 2005–2007; Pucher and Buehler 2008; USDOT 2010b.

oldest age groups in Denmark and the Netherlands. Of all trips made by persons 65 and older, the bike accounts for 23 percent of trips in the Netherlands, 15 percent in Denmark, and 9 percent in Germany, but less than 1 percent in the United States and the United Kingdom. Clearly, cycling is physically possible well beyond the age of 65, provided that conditions are safe and convenient.

Impacts of Car Ownership

High levels of car ownership are not necessarily incompatible with high levels of cycling. The Netherlands, Denmark, and Germany are affluent countries where almost all households have cars. Thus, their high cycling levels are not due to an inability to afford a car. Figure 2.5 shows that between 1960 and 2008, car ownership levels increased significantly in all countries. The United States has the highest level in motorization, followed by Germany, Canada, and Australia. The United Kingdom, the Netherlands, and Denmark have the lowest levels of car ownership. Increased car ownership and use discourage cycling by offering direct

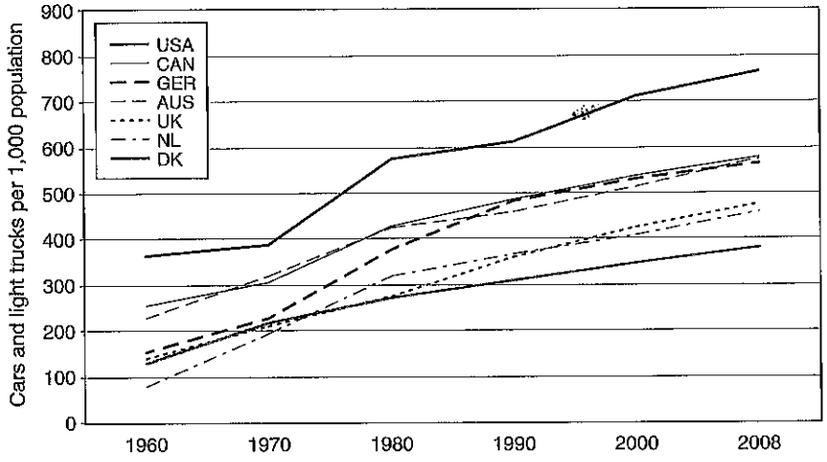

Figure 2.5
Trend in car and light truck ownership per 1,000 population in the United States, Canada, Australia, Germany, the Netherlands, and Denmark, 1970–2008. *Sources:* Bassett et al. 2008; German Ministry of Transport 2010; Danish Ministry of Transport 2010; Department for Transport 2010b; OECD 2003–2007; Pucher and Buehler 2008; Statistics Netherlands 2010; USDOT 2010b.

competition as a mode of travel and worsening traffic dangers for cyclists on roads. Nevertheless, cycling can thrive even in environments with nearly universal car ownership, as shown by the examples of Germany, the Netherlands, and Denmark, provided that car use is restricted from endangering or inconveniencing cyclists. The case of Germany, in particular, shows that high levels of car ownership do not preclude high levels of cycling. Although Germany has 20 percent more cars per capita than the United Kingdom, the bike share of trips in Germany is ten times higher than in the United Kingdom.

Higher taxes on car ownership and use in Europe help explain lower levels of automobile ownership and use compared to the United States, Canada, and Australia. In Europe, taxes account for roughly 65 percent of the gasoline retail price, compared to much lower tax shares in Australia (37%), Canada (32%), and the United States (20%) (IEA 2010). As a result, in 2009 gasoline retail prices per liter were two to three times higher in the Netherlands ($1.87), the United Kingdom ($1.84), Germany ($1.80), and Denmark ($1.78) than in Australia ($1.08), Canada ($0.91), and the United States ($0.65) (IEA 2010). Europeans also pay higher taxes on new car purchases. In Denmark, the tax rate on new car purchases is between 105 percent and 180 percent, depending on the value of the vehicles (DIW 2005). Compared to Denmark, taxes on car purchases are lower in Germany (19%), the United Kingdom (20%), and the Netherlands (20–50%), but still significantly higher than in North America and Australia (AAA 2007; Buehler 2010; Pucher and Buehler 2006). Moreover, better and more convenient public transportation systems in continental Europe—integrated with comprehensive bikeway and walkway networks—reduce the need to drive an automobile (Heinen, van Wee, and Maat 2010; Krizek, Forsyth, and Baum 2009; TRB 2001).

Policy Shifts to Promote Cycling

In the 1950s and 1960s, increasing motorization levels, sprawling urban development, and government policies in most western European countries favored car use and contributed to a sharp decline in cycling. For example, the number of daily bike trips in Berlin fell by 75 percent from 1950 to 1975 (City of Berlin 2003). Other German, Dutch, and Danish cities report declines in the bike share of trips from roughly 50–85 percent in 1950 to only 14–35 percent of trips in 1975 (Dutch Bicycle Council 2006). During that period, many European cities focused on expanding roadway and car parking supply while largely ignoring the needs of cyclists (Hass-Klau 1993b).

Increasing car use in cities led to environmental pollution, roadway congestion, and a sharp rise in traffic injuries and fatalities. Those harmful impacts of car use provoked a dramatic reversal of the transportation policies of most German, Dutch, and Danish cities. Instead of adapting themselves to the car, most cities chose to restrict car use and increase its cost while promoting public transportation, walking, and cycling (Buehler, Pucher, and Kunert 2009; ECMT 2004; Hass-Klau 1993a; Pucher 1995a, 1995b). Greatly expanded and improved cycling infrastructure contributed to a rebound in cycling. Between 1975 and 1995, cycling levels rose by about 25 percent in the same sample of German, Dutch, and Danish cities that had witnessed a drastic decline in cycling prior to 1975 (Dutch Bicycle Council 2006). In Berlin, the number of daily bike trips increased by 300 percent between 1975 and 2008 (City of Berlin 2010). National data also show a considerable increase in cycling since the policy shift of the 1970s. Since 1978, average daily kilometers cycled per inhabitant increased from 0.6 km to 1.0 km in Germany, from 1.3 km to 1.6 km in Denmark, and from 1.7 km to 2.5 km in the Netherlands. Over the same period, daily cycling levels declined in the United Kingdom from 0.3 km to 0.2 km and were roughly constant in the United States (0.1 km) (European Commission 2005–2007; USDOT 2010b).

Cycling Safety

Many studies document that traffic danger is a deterrent to cycling, especially for women, the elderly, and children (ABW 2010, 2012; ITF 2010; McClintock 2002; OECD 2007; WHO 2002). Thus, safer cycling conditions are perhaps the main reason for more cycling among all groups in Germany, Denmark, and the Netherlands. Figure 2.6 compares annual cyclist fatality and injury rates, controlling for kilometers of cycling per year. The Netherlands, Denmark, and Germany have the safest cycling. Cyclist fatality rates in the Netherlands are only a third

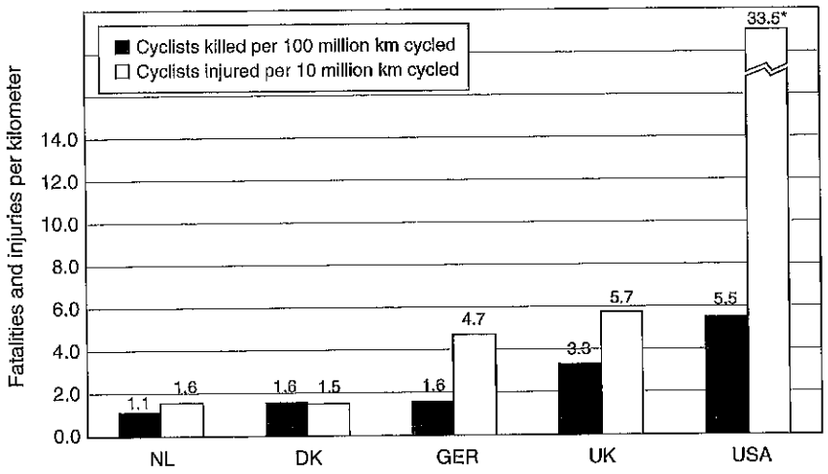

Figure 2.6
Cyclist fatality rates and nonfatal injury rates in the Netherlands, Denmark, Germany, the United Kingdom, and the United States, 2004–2008. *Note:* To control for annual fluctuations, a five-year average (2004–2008) was used for cyclist injuries and fatalities. Trips and kilometers for cycling exposure levels were derived from 2008 travel survey data. *The cyclist injury rate for the United States is off the chart and is thus shown with a discontinuous bar. *Sources:* Bassett et al. 2008; German Ministry of Transport 1991–2010, 2010; Danish Ministry of Transport 2010; Department for Transport 2010a, 2010b; Pucher and Buehler 2008; Statistics Netherlands 2010; USDOT 2006–2010, 2010b.

as high as in the United Kingdom and only a fifth as high as in the United States. Cyclist fatality rates are not quite as low in Denmark and Germany, but still only half as high as in the United Kingdom and less than a third as high as in the United States. Serious cyclist injuries are far more common than cyclist fatalities. However, data on injuries are less reliable than information on fatalities, mainly due to underreporting of injuries in police and hospital reports (OECD 2007). Available data suggest that cyclist injury rates in the United States are twenty times higher than in Denmark and the Netherlands and seven times higher than in Germany.

From 1970 to 2008, the annual number of cyclist fatalities decreased by roughly 70 percent in Denmark, the United Kingdom, Australia, the Netherlands, and Germany (figure 2.7). In contrast, cyclist fatalities in the United States increased sharply in the 1970s and then declined only slowly until the early 2000s. Since then, cycling fatalities in the United

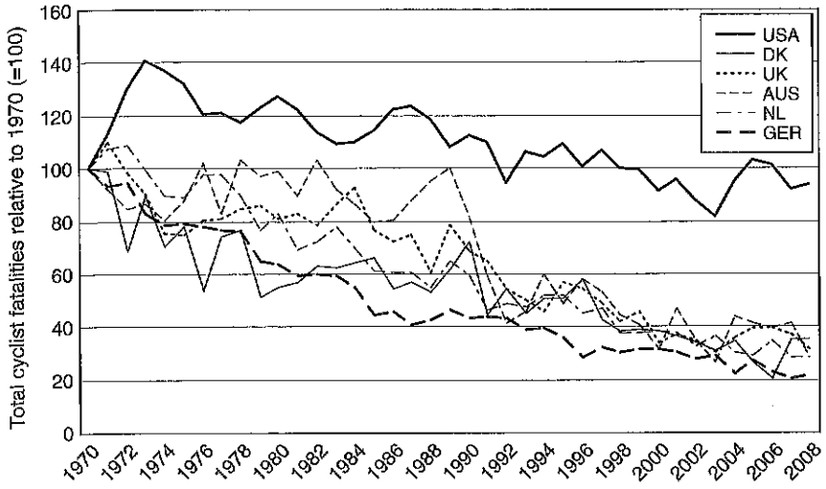

Figure 2.7
Trend in cycling fatalities in the United States, Denmark, the United Kingdom, Australia, the Netherlands, and Germany, 1970–2008 (percent relative to 1970 level). *Sources:* Australian Government 2004, 2011b; ITF 2010; Pucher and Dijkstra 2003.

States have remained near 1970 levels. In Australia, cycling fatalities fluctuated between 1970 and 1989 and then dropped off sharply between 1989 and 1993. That drop coincides with the implementation of Australia's mandatory helmet law for adult bicyclists. It is not clear whether cyclist safety in Australia actually improved or if the mandatory helmet law discouraged cycling, thus reducing cyclist exposure (Robinson 2006). The decline in fatalities in Denmark, Germany, and the Netherlands occurred without mandatory helmet laws and in spite of more cycling. Increasing cycling levels and falling injury and fatality rates support the theory of "safety in numbers" described in chapter 7.

National Cycling Strategies

As discussed in chapters 12, 13, and 14, most policies that increase cycling and make it safer are implemented at the local level. National governments, however, influence cycling through national cycling policies, dedicated funding, traffic regulations, roadway and bikeway design

standards, and dissemination of cycling expertise. Motivations for national governments to promote cycling vary but often include environmental and public health benefits, reduced traffic congestion and noise, improved traffic safety, and tourism (ABW 2012; ECMT 2004).

National cycling strategies and master plans vary greatly in content, level of detail, legal status, and financial commitment. Canada is the only case study country without a national cycling policy: the Canadian constitution specifically relegates the responsibility for local transportation to provincial governments (Transport Canada 2011). In the other countries we examined, national cycling policies establish the general goal of increasing cycling levels and making cycling safer. In some countries, national governments postulate specific goals for cycling. For example, the UK National Cycling Strategy of 1996 set the goal of quadrupling cycling levels by 2012. In most cases, however, national strategies and plans do not set specific targets. The German national cycling plan is typical in calling for significant increases in cycling without quantifying goals (German Ministry of Transport 2006a; Danish Ministry of Transport 2011; Department for Transport 2008; Netherlands Ministry of Transport 2006; Transport Canada 2011; USDOT 2010d).

National cycling policies provide a vision for cycling that can guide lower levels of governments in their own efforts to increase cycling and make it safer. In Denmark and the Netherlands, for example, national cycling policies are intended to help local jurisdictions develop their own bicycle plans (Danish Ministry of Transport 2011; Netherlands Ministry of Transport 2006). In most countries, the national cycling policy recommends improved data collection and benchmarking efforts to increase knowledge about cycling. Some national governments coordinate the dissemination of information about best practices or cutting-edge planning tools (e.g., the Danish "ideas catalog").

National Funding for Cycling

Most national cycling policies provide little, if any, dedicated funding to finance implementation of the measures proposed in the national policy. The German national master plan is an exception; it provides annual funds for national cycling promotion (German Ministry of Transport 2002). In the 1990s, the Dutch national master plan provided funds for bike infrastructure to municipalities, but current funding is limited to bike parking at rail stations and requires a 50 percent local government match (Netherlands Ministry of Transport 2006, 2009). Some national governments have also provided dedicated funding for experimental cycling projects, such as the Nonmotorized Transportation Pilot program in the United States, the National Cycle City program in Denmark, and the Canadian Urban Transportation Showcase program (Danish Ministry of Transport 2011; Transport Canada 2010; USDOT 2010a, 2010d).

Local jurisdictions usually have some flexibility in their use of national funds. Cycling projects, for example, are eligible for federal Transportation Enhancement (TE) funds in the United States and the federal Urban Transport (GVFG) funds in Germany (German Ministry of Transport 2005; USDOT 2010d). In many countries, national governments fund cycling infrastructure along national highways, often as part of roadway improvement programs. Moreover, most governments contribute toward funding programs to improve cycling training and safety, such as the Safe Routes to School program in the United States, the Bikeability Program in the United Kingdom, and the dedicated fund for cycling safety in Denmark (Danish Ministry of Transport 2011; Department for Transport 2008; USDOT 2010d). In some countries, part of the national funding is competitive, such as the Cykelpuljen program in Denmark, the Sustainable Transport Fund in the United Kingdom, and the Urban Transportation Showcase Fund in Canada (Danish Ministry of Transport 2011; Department for Transport 2011; Transport Canada 2010).

Traffic Regulation and Training for Drivers and Cyclists

Australian states, Canadian provinces, and American states are responsible for driver's training and traffic regulations for motorists as well as cyclists (ABW 2010; Australian Government 2004; Transport Canada 2011). Following federal recommendations, all Australian states and most territories passed laws requiring cyclists of all ages to wear helmets (see chapter 7). In Canada, four out of thirteen provinces and territories require all cyclists to wear helmets, and two provinces require cyclists under the age of eighteen to wear helmets (Robinson 2006). In spite of federal government endorsement of helmet use in the United States, no state requires bike helmets for adults and only half of states require

helmets for children (ABW 2010; Dennis et al. 2010). Denmark, Germany, the Netherlands, and the United Kingdom do not require bike helmets for children or adults but strongly encourage bike helmets for children (ECMT 2004).

All European countries have national traffic signage and regulations. In the Netherlands and Germany, national regulations prioritize the traffic safety of cyclists and pedestrians, with special protection for children and seniors, who are especially vulnerable (German Ministry of Transport 2006b; Pucher and Buehler 2008). Nationally standardized driver's training courses and strict motorist licensing tests in Europe emphasize the importance of protecting vulnerable road users. Driver's training is expensive in western Europe, where obtaining a driver's license typically costs between €1,000 and €2,000 (European Driving Schools Association 2010; KBA 2007). Driver's training in the United States, Canada, and Australia is much less expensive than in Europe and does not stress the legal obligation of motorists to avoid endangerment of pedestrians and cyclists (Australian Government 2011a; Transport Canada 2011; USDOT 2007).

Most children in Germany, Denmark, and the Netherlands participate in cycling training or testing in school (German Ministry of Transport 2002; Danish Ministry of Transport 2011; Netherlands Ministry of Transport 2006). In both Denmark and the Netherlands, safe cycling courses for school children are required by the national government. Safety courses are financed by the national government in Denmark but by municipalities in the Netherlands. About 80 percent of Dutch schools participate voluntarily in a national cycle testing program for children—focusing on practical on-road cycling skills beyond classroom safety lessons (Netherlands Ministry of Transport 2006). In Germany, all states have adopted bike training as an integral part of the school curriculum in the third or fourth grade (German Ministry of Transport 2002). Courses vary from state to state but usually include classroom instruction about cycling safety and traffic regulations, police-administered training sessions on special off-street bike training facilities, and in-traffic cycling training with police officers on local streets. Only a few American, Canadian, and Australian schools provide cyclist training for children, and participation by students is voluntary (Pucher, Buehler, and Seinen 2011; Pucher, Garrard, and Greaves 2011). Nongovernmental organizations

such as CAN-Bike in Canada and the League of American Bicyclists in the United States provide cyclist training for all ages and skill levels, but such courses are not offered in most cities (CAN-Bike 2011; LAB 2010). Moreover, they charge a fee and reach only a small percentage of the population.

Speed Limits and Design Standards for Roadways and Bikeways

In all countries, municipalities determine policies such as speed limits and traffic calming of residential streets. Starting in the 1970s, German and Dutch municipalities progressively traffic-calmed almost all neighborhood streets (Hass-Klau 1993a, 1993b; Pucher and Buehler 2008). Speed limits are typically 30 kilometers per hour (km/h) or less, and sometimes as low as 15 km/h or even 7 km/h (walking speed) (Buehler 2010; Hamilton-Baillie 2001). In North America and Australia, speed limits in residential neighborhoods are much higher, and traffic calming is usually limited to a few streets, not area-wide as in European cities. Some North American cities such as Vancouver (British Columbia) and Seattle (Washington) have implemented traffic calming measures for decades, but none as extensively as in Europe (Ewing 1999, 2008; Hamilton-Baillie 2001; Hass-Klau 1993b; Webster and Mackie 1996).

National and state governments are responsible for speed limits and road design on national and state highways. Even in urban areas, such roads are subject to specific national or state standards. Municipalities must seek the approval of higher levels of government to make any physical changes to these national or state roads. National governments or national nongovernmental organizations often publish design guidelines for roadway and cycling facilities. In the United States, for example, the federal government publishes the Manual on Uniform Traffic Control Devices (MUTCD), which must be followed by all states (USDOT 2009). The American Association of State Highway and Transportation Officials (AASHTO) and the National Association of City Transportation Officials (NACTO) publish detailed design guidelines for bicycle facilities in the United States (AASHTO 1999; NACTO 2010). Similar nongovernmental organizations in the Netherlands and Germany regularly update and disseminate guidelines for best practice in bikeway and roadway design in those two countries (CROW 2010; Roadway and Transport Research Center 2007). Canadian provinces and Australian

states have their own road and bikeway standards, which are often based on national guidelines (Austroads 2010; TAC 1998).

Trends in Government Support for Cycling

National government funding for cycling varies greatly across countries and over time. For example, in the United States, federal funding for bicycling and walking increased from only $5 million per year in the late 1980s to over $1 billion per year in 2009 (Rails-to-Trails Conservancy 2010). It is not possible to separate funding for bicycling and walking for the United States, but the significant increase in funding for both modes combined reflects the large increase in federal spending on cycling. The British national government strongly supported cycling in the 1990s and early 2000s. However, the Conservative government that came into power in 2010 discontinued most national cycling programs in April 2011 (Department for Transport 2008, 2011). The national governments of Australia and Canada have never played a major role in cycling promotion, with no regular funding at all and only occasional support for experimental programs such as TravelSmart (individualized marketing) in Australia and the Urban Transportation Showcase (for sustainable transportation projects) in Canada (Australian Government 2006; Transport Canada 2010).

The German federal government has been increasing its involvement in cycling in recent decades, both through increased funding and by supporting cycling planning and promotion. Federal funding for cycling more than doubled from about €50 million per year in 1990 to €120 million annually in 2006 (German Parliament 2007). Moreover, the German Ministry of Transport published its first national cycling report in 1998, followed by its national cycling plan in 2002 and the forthcoming national cycling plan 2020 (German Ministry of Transport 2002; German Federal Government 1998). Dutch and Danish national governments provide limited financial support, but cycling is an integral part of national transportation planning in both countries (Danish Ministry of Transport 2011; Netherlands Ministry of Transport 2006, 2009).

National governments have increased their support for cycling over the past few decades with the expectation that a modal shift from driving to cycling would help combat societal problems such as obesity and air pollution. Chapter 3 discusses in detail the range of important individual and societal health benefits of cycling that justify national government support for policies to promote cycling.

As this brief overview of national policies suggests, national governments provide state and local governments with funding as well as technical assistance and coordination of cycling planning and promotion efforts. In all countries, however, state and local governments have the ultimate responsibility for adopting and implementing specific cycling infrastructure and programs. Municipal government policies, in particular, determine the ultimate fate of cycling, as discussed in the detailed city case studies in chapters 12, 13, and 14.

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